Sub B2

What is claimed is:

1. A method for separating a component from a fluid solution containing said component comprising the steps of:

(a) treating a fluid containing said component with a macrocyclic antibiotic to cause said component to be separated from said fluid; and

(b) recovering said component.

2. The method of claim 1 wherein said treatment step is conducted by means of a process selected from the group consisting of crystallization, precipitation, filtration, electrophoresis and chromatography.

3. The process of claim 1 wherein said macrocyclic antibiotic is selected from the group consisting of: ansamacrolides, macrolides, macrocyclic peptides, glycopeptides, polyenes and derivatives thereof.

4. The process of claim 2 wherein said process is crystallization or precipitation and said treating step comprises adding said macrocyclic antibiotic to said fluid in an effective amount to cause precipitation or crystallization.

Sub B3

5. The process of claim 2 wherein said process is membrane separation, electrophoresis or chromatography and said macrocyclic antibiotic is affixed to a support and said treating step comprises contacting said fluid with said macrocyclic antibiotic attached to said support.

6. The process of claim 2 wherein said process is electrophoresis or chromatography and said treating step comprises adding said macrocyclic antibiotic as a mobile phase additive.

7. A method for separating enantiomers from a mixture of enantiomers comprising the step of treating a mixture of enantiomers with a macrocyclic antibiotic to separate the mixture

pages 60-62 replaced by amended claims on pages 63-64

of enantiomers into individual enantiomers, and recovering said individual enantiomers.

8. The method of claim 7 wherein said macrocyclic antibiotic is selected from the group consisting of: ansamacrolides, macrolides, macrocyclic peptides, glycopeptides, polyenes and derivatives thereof.

Sub B4 9. The method of claim 7 wherein the step of treating is conducted using a chromatographic separation process in which said mixture of enantiomers is eluted through a column wherein said macrocyclic antibiotic is affixed to a support material and acts as a stationary phase in said column.

10. The method of claim 7 wherein the step of treating is conducted using electrophoresis in which said mixture of enantiomers is separated in an apparatus wherein said macrocyclic antibiotic is affixed to a support material and acts as a stationary phase in said apparatus.

11. A separation material for separating enantiomeric mixtures into separate enantiomers comprising a macrocyclic antibiotic attached to a support.

12. The separation material of claim 11 wherein said macrocyclic antibiotic is selected from the group consisting of ansamacrolides, macrolides, macrocyclic peptides, glycopeptides, polyenes and derivatives thereof.

13. The separation material of claim 11 wherein said support is selected from the group consisting of silica gel, alumina, polystyrenes, polyurethanes, polyvinyl alcohols, polyamides, agarose, cellulose, dextran and linear and branched amylose.

14. The separation material of claim 13 wherein said macrocyclic antibiotic is chemically bonded to said support.

15. The separation material of claim 13 wherein said macrocyclic antibiotic is coated on said support.

Add B5

AMENDED CLAIMS

[received by the International Bureau on 13 June 1995 (13.06.95); original claims 1,2,8,9,10 amended; original claims 7,15 cancelled; remaining claims unchanged (2 pages)]

1. A process for separating enantiomers from a fluid solution containing said enantiomers comprising the steps of:
(a) treating a fluid containing said enantiomers with a macrocyclic antibiotic to cause said enantiomers to separate one from another; and
(b) recovering the separated enantiomers.

SUB B2

2. The process of claim 1 wherein said treatment step is conducted by means of a process selected from the group consisting of crystallization, precipitation, filtration, electrophoresis and chromatography.

3. The process of claim 1 wherein said macrocyclic antibiotic is selected from the group consisting of:
ansamacrolides, macrolides, macrocyclic peptides, glycopeptides, polyenes and derivatives thereof.

4. The process of claim 2 wherein said process is crystallization or precipitation and said treating step comprises adding said macrocyclic antibiotic to said fluid in an effective amount to cause precipitation or crystallization.

5. The process of claim 2 wherein said process is membrane separation, electrophoresis or chromatography and said macrocyclic antibiotic is affixed to a support and said treating step comprises contacting said fluid with said macrocyclic antibiotic attached to said support.

SUB B3

6. The process of claim 2 wherein said process is electrophoresis or chromatography and said treating step comprises adding said macrocyclic antibiotic as a mobile phase additive.

7. (Deleted)

8. The process of claim 5 wherein said macrocyclic antibiotic is selected from the group consisting of:
ansamacrolides, macrolides, macrocyclic peptides, glycopeptides, polyenes and derivatives thereof.

SUB B4

9. The process of claim 8 wherein the step of treating is

conducted using a chromatographic separation process in which said mixture of enantiomers is eluted through a column wherein said macrocyclic antibiotic is affixed to a support material and acts as a stationary phase in said column.

10. The process of claim 8 wherein the step of treating is conducted using electrophoresis in which said mixture of enantiomers is separated in an apparatus wherein said macrocyclic antibiotic is affixed to a support material and acts as a stationary phase in said apparatus.

11. A separation material for separating enantiomeric mixtures into separate enantiomers comprising a macrocyclic antibiotic attached to a support.

12. The separation material of claim 11 wherein said macrocyclic antibiotic is selected from the group consisting of ansamacrolides, macrolides, macrocyclic peptides, glycopeptides, polyenes and derivatives thereof.

13. The separation material of claim 11 wherein said support is selected from the group consisting of silica gel, alumina, polystyrenes, polyurethanes, polyvinyl alcohols, polyamides, agarose, cellulose, dextran and linear and branched amylose.

14. The separation material of claim 13 wherein said macrocyclic antibiotic is chemically bonded to said support.

STATEMENT UNDER ARTICLE 19

An International Search Report was mailed 10 April 1995.

Replacement pages, 60-61, are transmitted herewith. These replacement pages present amended claims 1, 2, 7, 8, 9 and 10. The remaining claims are unchanged.

Claim 1 was amended to limit the separation process to the separation of enantiomers. Specifically, the word "component" was replaced with the word "enantiomers" and some additional changes were made to provide consistency to the claim.

Claims 2, 8, 9 and 10 were amended to make them consistent with the claims on which they depend. Namely, the preamble of the claim on which they depend read "process" whereas in the original claim 2, 8, 9 and 10, the preamble read "method". Since claim 7 is deleted, claims 8, 9 and 10 were made dependent upon claims 5 and 8 respectively.

Claim 7 was deleted since it is now redundant given the amendment to claim 1.

9/3/98 EST